

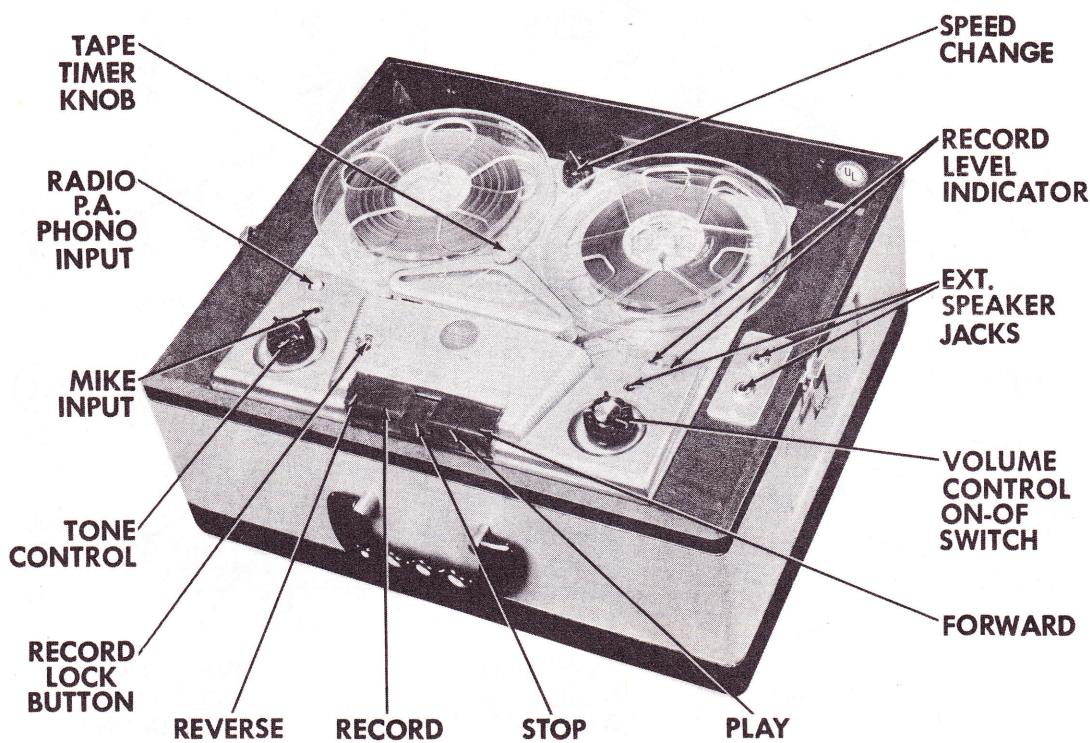
KNIGHT
MODEL 96RX635KNIGHT
MODEL 96RX635

Figure 1

GENERAL INFORMATION

The Knight Model 96RX635 features fingertip operation for Fast Forward, Playback, Stop, Record and Fast Reverse. Double-track recording is used, giving two full length recordings on a single reel of Tape. Any size up to 7" can be used. Two neon recording indicators simplify the recording level setting. New recordings can be made on previously recorded tape since the erase head is automatically positioned when the Record button is pressed or the same recording may be played back indefinitely. Recordings can be made from a radio, television receiver, or phonograph, in addition to those made directly from the microphone. Recordings can be played back through the self-contained speakers, or an external speaker through use of the External Speaker Jack.

Using both channels of the tape, the recording time is as follows:

<u>SIZE</u>	<u>SPEED</u>	<u>SPEED</u>
5" reel	3-3/4	7-1/2
7" reel	1 hour 2 hours	1/2 hour 1 hour

The Knight is designed to operate on 60 cycle, 115 volt, AC supply only. Before connecting to your line supply, be absolutely certain that it agrees with the above specifications.

Allied Radio Corporation
833 West Jackson Boulevard
Chicago 7, Illinois

This material compiled and published by

H O W A R D W . S A M S & C O . , I N C . , I N D I A N A P O L I S , I N D I A N A

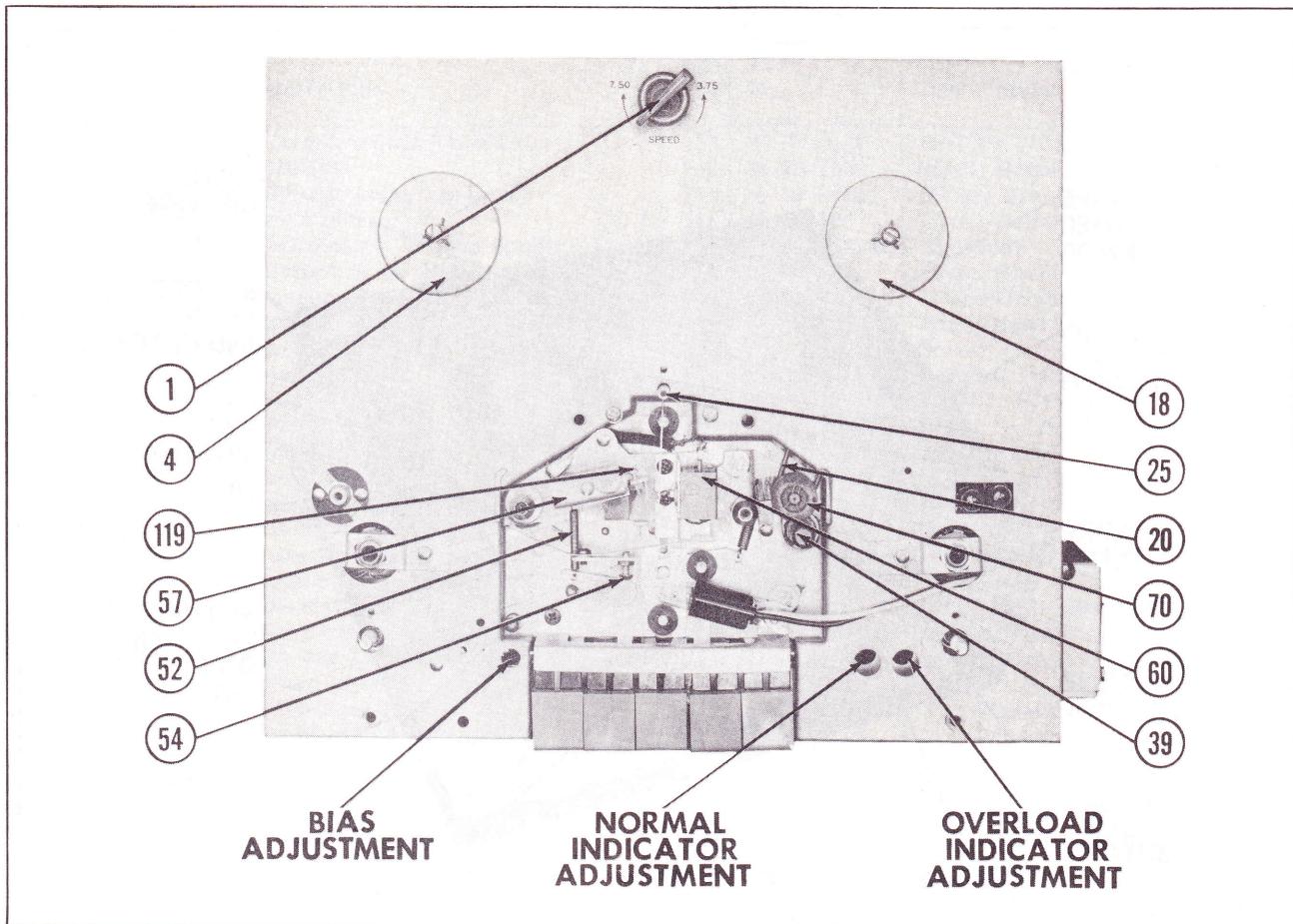


Figure 2

OPERATING INSTRUCTIONS

Preparation For Operation-

1. Remove the AC power cord, 5" reel of tape, empty reel and the microphone from the storage compartment.
2. Depress the "Stop" button.
3. Plug the AC cord into a convenient wall receptacle of the proper rating.
4. Set speed change knob to 7.50 or 3.75 as desired.
5. Place Remote-Normal switch in "Normal" position.

CAUTION: Do not turn speed change knob unless "Stop" button is depressed.

When the Forward or Reverse buttons are depressed, the Record and Play buttons are locked so that they cannot be pressed down, with the possibility of spilling tape. The buttons should always be pressed down firmly until they latch and the Stop button must be depressed before changing functions or speeds of the recorder.

IMPORTANT: Always depress the Stop button when the machine is not in use.

Speed Change Knob-

The arrow on the speed change knob should point at 7.50 or 3.75 according to the speed desired. This recorder has two speeds, 7 1/2" and 3 3/4" per second. The arrow pointing at 7.50 means the unit will operate at the fast speed or 7 1/2" per second.

CAUTION: Turning the speed change knob while the unit is operating will not change the speed. The Stop button must be depressed before the speed can be changed.

Threading The Tape-

1. Place a full reel of tape on the left (supply) spindle, making certain one of the reel slots catch the protrusions of the pan. Unwind about 14" of tape from the supply reel.

2. Insert free section of tape into the tape slot.

3. Insert free end of tape into one of the three slots in the hub of the right (take-up) reel and while holding the tape in place give the reel two or three turns until the tape is secured.

4. The dull side of the tape should always face away from the operator (rear of unit).

To Record From Microphone-

1. Turn the On-Off Volume control to the right until a click is heard and allow about 30 seconds for

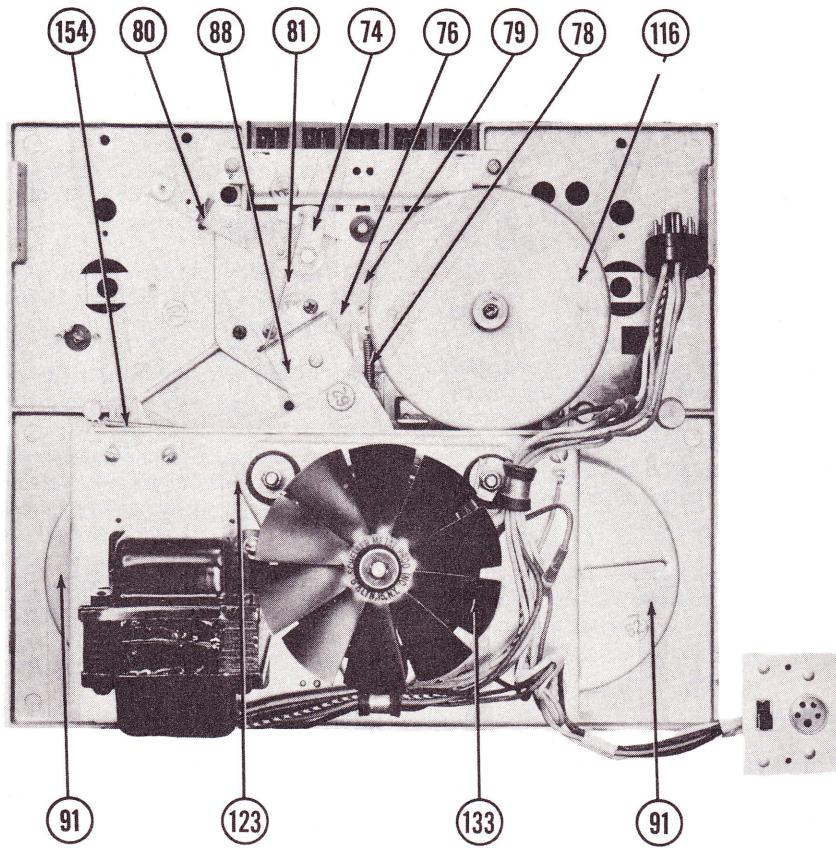


Figure 3

the unit to warm up. The pilot light located above the Stop button will glow when the unit is turned on.

2. Insert the microphone plug into the "Microphone" input.

3. Move the record lock button (27) downward with the left hand. This releases the safety lock which prevents accidental erasure.

4. Depress the "Record" button with the right hand (while holding record lock button (27) with the left hand) until it latches.

5. Adjust the "Volume" control until the "Normal" indicator just flashes, while speaking into the microphone. When the "Volume" control is advanced too far the "Overload" indicator will flash and the recording will be distorted. To prevent overload, lower the "Volume" control to a point where the "Overload" indicator will not flash.

6. The "Tone" control does not operate during recording. When recording from radio, set the radio "Tone" control for maximum treble.

To Record From External Radio, TV, Or Phonograph-

1. Insert the phonograph pickup plug into the "Radio-P. A. -Phono" jack.

2. For radio or TV recording, connect patch cord, part No. C20.233 to the voice coil of the radio

or TV receiver speaker by means of the alligator clips. Plug into "Radio-P. A. -Phono" jack.

3. Proceed as described under "To Record From Microphone".

NOTE: Remove patch cord after recording is completed.

To Use Second Track-

1. Depress the "Stop" button when all the tape has wound onto the take-up reel.

2. Remove reel containing tape and place on left-hand supply pan.

3. Place empty reel on right-hand take-up pan.

4. Thread tape as previously described.

To Play Recordings-

1. Turn on unit with "Volume" control knob.

2. Thread tape as described under "Threading The Tape."

3. Set the speed change knob (1) to the speed at which the recording was made.

4. Depress "Play" button until it latches.

5. Adjust "Volume" and "Tone" controls to desired listening level.

High-Speed Forward Or Reverse-

When it is desirable to play a certain portion of the tape over again it is not necessary to rewind the entire tape. By depressing the "Forward" or "Reverse" button the tape will advance (or reverse) at a rapid speed.

Several minutes of normal recording can be skipped in a few seconds by the "Reverse" and "Forward" buttons.

Tape Timer-

If, when making recordings or playing a recorded tape, you wish to play back a certain recording, note the reading on the timer scale when the particular recording is being made or heard. Rewind the tape until the number you have noted appears on the scale, press "Stop" button, then press "Play" button and you are now listening to the recording you wanted.

When starting a new reel of tape or re-recording a reel, reset the indicator pointer to "O" by rotating the reset knob. By starting at "O" on all tapes, the number location can be cataloged for each selection on any reel.

To Edit And Splice Tape-

NOTE: Since it is impossible to edit and splice one track without affecting the other, recordings which are to be edited should be limited to one track only.

1. The tape may be edited by cutting out unwanted portions, or by joining selections into another sequence. Announcements may be inserted between selections, etc. Unused sections of tape can be spliced together for re-use.

2. For best results, cut tape at a slight diagonal, join ends together with splicing tape on the glossy side and trim off any excessive width.

Erasing Recorded Material-

When the record button is depressed, the erase head is automatically positioned, erasing any previous recording before a new one is made. You may erase material no longer needed, without recording, by depressing the "Record" button and turning the "Volume" control knob to the minimum volume position or extreme counter-clockwise position just before the recorder shuts off. One track is erased at a time. To erase the second track, reverse the reels and repeat the above operation.

To Use Recorder As A Public Address System-

Insert the microphone plug into the "Microphone" input jack. Plug in an extension speaker or speakers if desired and depress the "Record" button. Set the "Volume" and "Tone" controls to the desired listening level. A recording can be made at the same time with a tape placed on the unit in the normal manner.

CAUTION: When using the public address feature, see that the microphone is as far away from the speakers as possible, to prevent "feedback" squeal.

Remote Control Operation-

A socket and switch are provided to allow remote operation up to a distance of 18 feet, either recording or playback. This is accomplished by means of a remote control cable (Mod. No. HC-12). Connect attachment cord as follows:

1. Insert remote control cable plug into remote socket. Be sure remote control switch on end of cable, is in "Standby" position.

2. With control switch on the recorder in "Normal" position start the unit in the regular manner and set "Volume" control to the proper level.

3. Place control switch on the set to "Remote" position. Tape will come to a stop.

The recorder can now be operated (start and stop) by means of the remote cable switch. When starting the recorder by means of the remote control, the switch should be rotated to the "Motor" position and then after a slight pause rotated to the "Record-Play" position. To stop recording or playback, rotate the control switch directly to "Standby" position, pausing slightly at the "Motor" position.

ADJUSTMENTS

Record-Play Head Adjustment- (See Exploded View)-

To adjust the record-play head (60) for maximum frequency response, make the following adjustment:

1. Remove the rear escutcheon (6) and rear escutcheon plate (26).

2. Properly thread an alignment tape or a good recorded tape on the machine.

3. Set the controls as described under "To Play Recordings".

Grip the vertical portion of the record head mounting bracket with a pair of long-nosed pliers. Rock the mounting bracket and record head from side to side slightly until the maximum high frequencies are obtained. Bend the bracket with the pliers to obtain a permanent set at this position.

Pressure Pad Adjustment- (See Exploded View)-

1. Remove the front escutcheon (10).

2. Depress the "Play" button. Do not turn the recorder on.

3. Use a pencil type postal scale and check the amount of pressure necessary to just pull the pad away from the tape. The test should be made on the end of the pressure pad mounting spring (65). Adjust the pressure pad for 1 3/4 oz. +1/4 oz. pressure.

(a) The record head pressure pad is adjusted by the locked adjustment screw (54).

(b) The guide post pressure pad (53) is adjusted by bending the pressure pad spring. It must be adjusted for minimum pressure against the tape.

4. After the adjustments are made depress the "Stop" button and replace the front escutcheon.

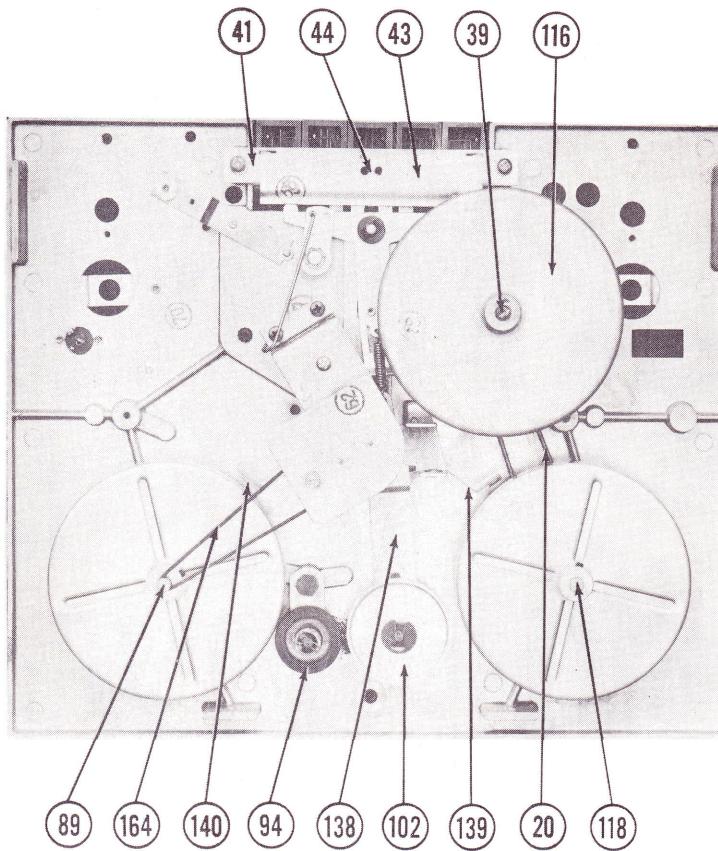


Figure 4

Erase Head Adjustment-

1. With tape properly threaded, turn recorder on and depress the "Record" button. Allow tape to run for a few seconds then turn recorder off, but leave "Record" button depressed.

2. With the escutcheons removed check the erase head (57) to see if it is parallel with the tape.

3. Check to see if the top edge of the tape coincides with the top end of the diagonal slot in the erase head (junction of long diagonal slot and short vertical slot). To adjust level of tape, loosen set screw (47), see exploded view, and rotate tape guide post (48) to move tape up or down. Tighten set screw (47).

4. After this adjustment has been made, check to see if the tape moves forward approximately $1/64"$ when the "Record" button is depressed. If not, loosen the forward adjustment screw (119), see Figure 2, and turn the screw in or out as required to obtain this $1/64"$ movement. Tighten the lock nut.

Brake Shoe Adjustment-

1. In order to adjust the brake shoes, the complete mechanism must be removed from the carrying case and the speaker disconnected.

2. With all push buttons in the up position the brake shoes (140) should clear the drums by approximately $1/8"$.

3. Depress the "Stop" button while observing the brake shoes. Both brake shoes must contact the drums at the same time and with equal pressure.

4. The adjustment is accomplished by bending the spring arm (139).

Adjustment For Slow Take-Up Reel-

There are some instances where the spring drive belt (20), see Figures No. 2 and No. 5A, stretches after a period of time. When this happens, the takeup torque will be insufficient to wind tape properly onto the take-up reel. In this case, the belt should be replaced as follows:

Remove rear escutcheon (6) and rear escutcheon plate (26). Remove take-up reel pan (18). With the "Stop" button depressed, remove old spring drive belt from around pressure roller (70) and lift belt clear of recorder. Install new belt by reversing the above procedure.

Bias Adjustment-

Turn the recorder on and depress the "Record" button; use no tape. To determine if the bias is within satisfactory limits without dismantling the unit, merely connect a VTVM from the top lug of the recording head to chassis. If 75 to 100 volts are present no adjustment is necessary.

If the readings are outside of this range, proceed as follows:

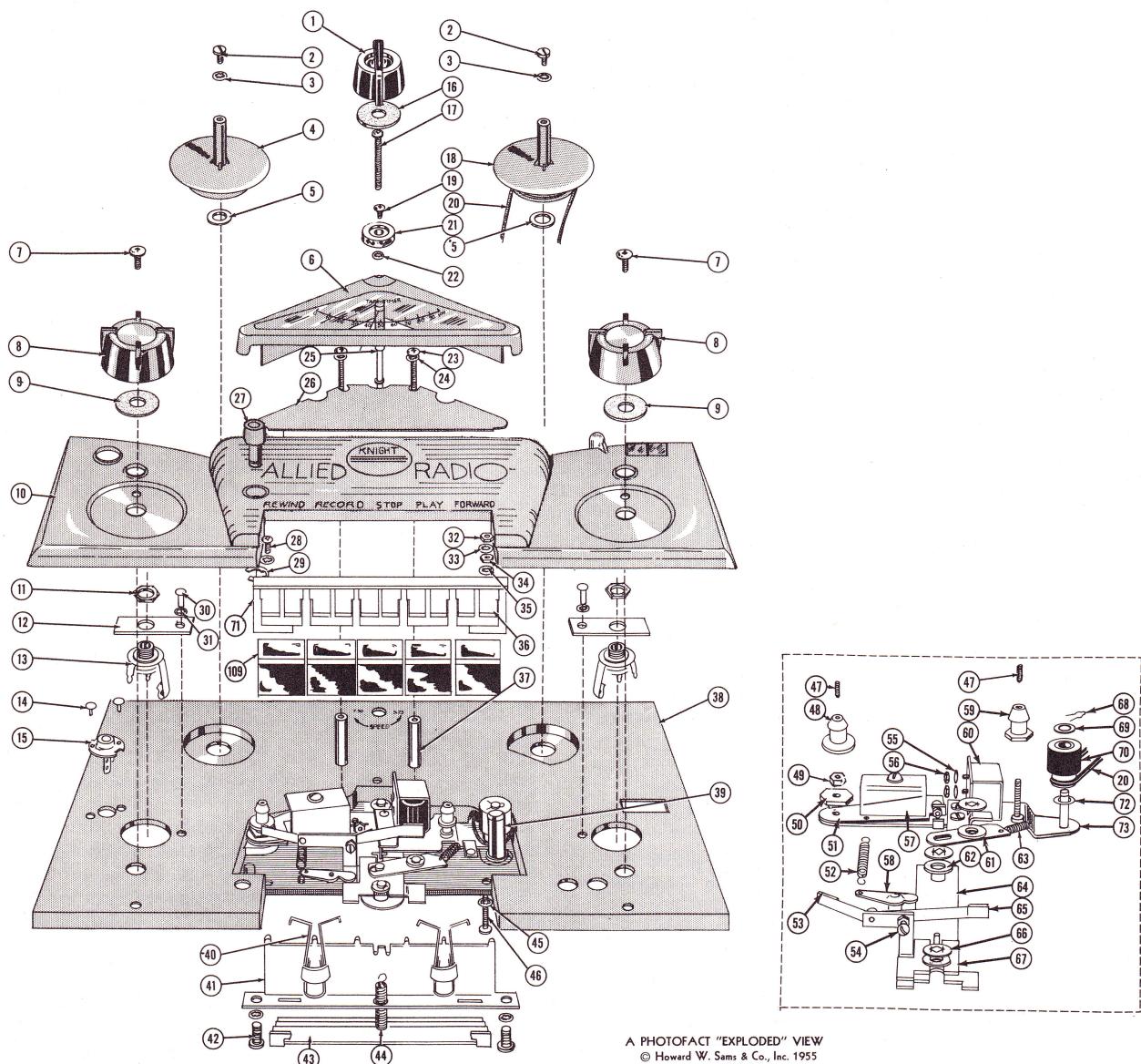


Figure 5A. Exploded View Of Parts Above Baseplate

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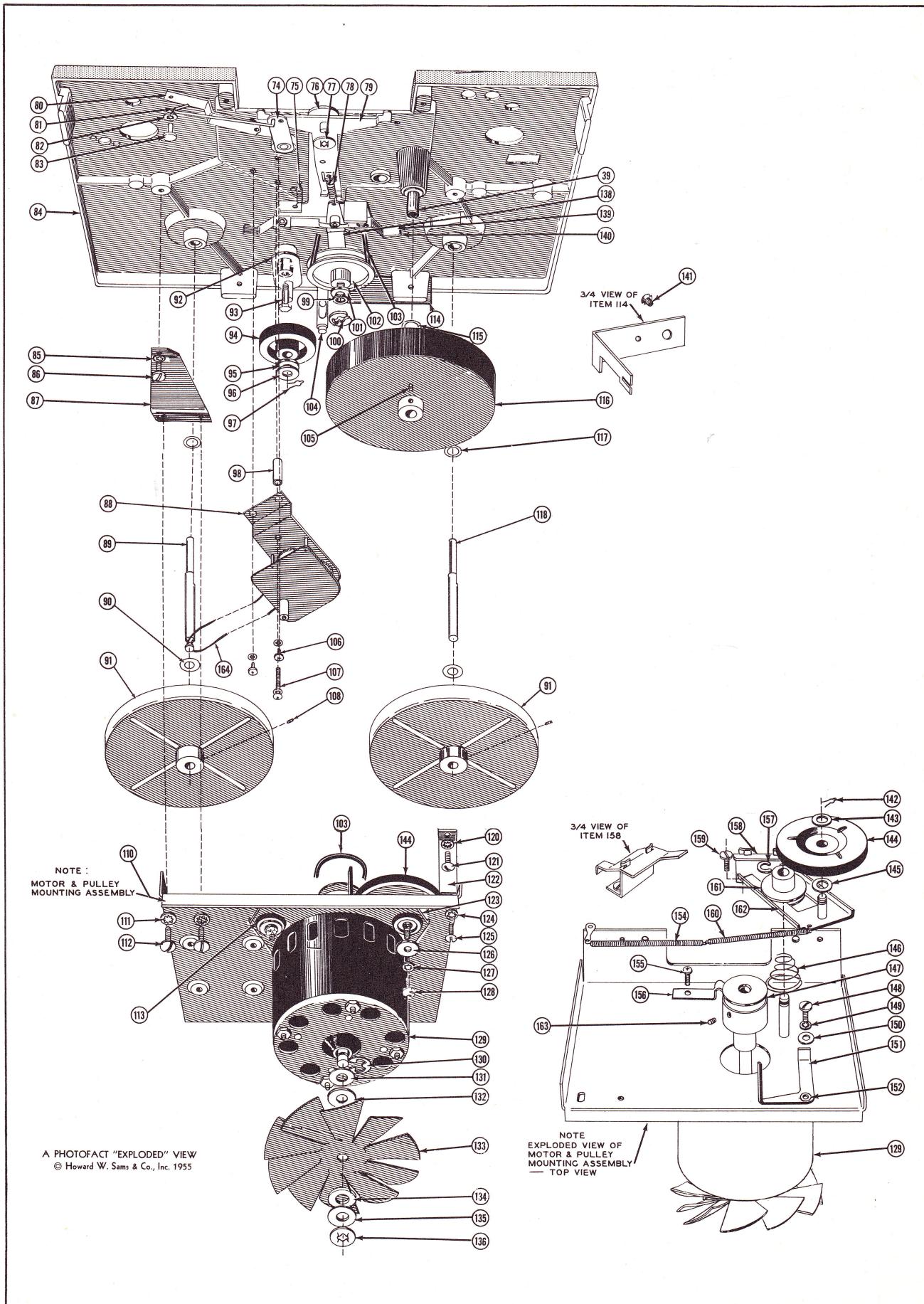


Figure 5B. Exploded View Of Parts Below Baseplate

1. Try a new 12AY7, 12AX7, 6AQ5, and 5Y3.

2. If still not within range, remove the chassis and connect a low capacity VTVM from test point "A" to chassis. Use low scale. Adjust trimmer M7 for maximum reading. Adjust trimmer M4 to obtain a reading of 2.25 volts. This provides the optimum in performance.

Neon Record Level Indicators-

The neon record indicator firing level adjustment is only required if a neon bulb is replaced. The two neon indicators are adjusted for correct firing level by means of two trimmer capacitors, one for each indicator.

To adjust indicators proceed as follows:

1. Turn recorder on and depress "Record" button.

2. Connect a short jumper lead across the bias oscillator coil, L1 (short out the coil to disable the oscillator).

3. Connect an audio oscillator, set at 1000 cycles, into the microphone input jack. Output of audio oscillator should be approximately .01 volt. (A1 volt output level may be used with a 100 to 1 reduction pad of resistors inserted between the audio oscillator and the microphone jack).

4. Connect probe of low capacity type AC VTVM to test point "B" (junction of two 330K resistors, R28 and R29 mounted on a terminal strip near the volume control).

5. Adjust volume control to obtain a reading of 36 volts on VTVM and leave control set and VTVM connected.

6. Disconnect shorting jumper from across bias oscillator coil.

7. Adjust "Normal" indicator trimmer M5A fully clockwise and then turn slowly counterclockwise so that upon loosening the trimmer the "Normal" bulb barely lights. This adjustment must be made loosening the trimmer.

8. Short out the bias oscillator coil.

9. Increase volume control to obtain a reading of 88 volts on the VTVM.

10. Remove short from bias oscillator coil

11. Adjust "Overload" indicator trimmer M5B as described in step "7" for just barely lighting the "Overload" indicator bulb.

IMPORTANT: Do not readjust the recording bias oscillator after setting the indicator light adjustments.

TROUBLES

Push Buttons Fail To Latch Into Position-

1. Lock plate spring (44) loose or broken, resulting in the lock plate not being held against the hinge bracket (41).

Fails To Erase-

1. Spring (52) loose or broken, resulting in the erase head (57) not being pulled forward to engage the tape.

2. Erase head not aligned properly. See "Erase Head Adjustment".

No Fast Forward Or Reverse-

1. Idler lever tension spring (78) may be loose or broken; if so, idler lever (138) will not be actuated.

2. Check idler drive belt (103) to see if it is properly connected.

No Drive On Record Or Playback-

1. Idler tension spring (154 or 160) loose or broken, thereby not holding idler wheel (144) in engagement with motor pulley (147) and flywheel (116).

2. Idler slide plate (162) binding on slide bushing (161), thus preventing idler wheel (144) from moving forward.

Tape Fails To Wind On Take-Up Reel During Record Or Playback-

1. Reel drive spring (20) loose or broken. See "Adjustment For Slow Take-Up Reel".

2. Brake drum shaft (118) binding. Clean foreign matter from bearing surface.

Speed Variation Or "Wow"-

1. Check the capstan (39), pinch roller (70), idler wheel (144), motor pulley (147), and flywheel (116) for oil or foreign material on their driving surfaces. Clean these parts with a good cleaning fluid.

2. Check motor pulley (147) to see if it is secured to motor shaft.

3. Check idler tension spring (154 and 160); see if they are holding idler wheel (144) in firm contact with motor pulley (147) and flywheel (116).

4. Idler slide plate (162) binding on slide bushing (161), preventing idler wheel (144) from making positive contact with the motor pulley and flywheel.

CLEANING

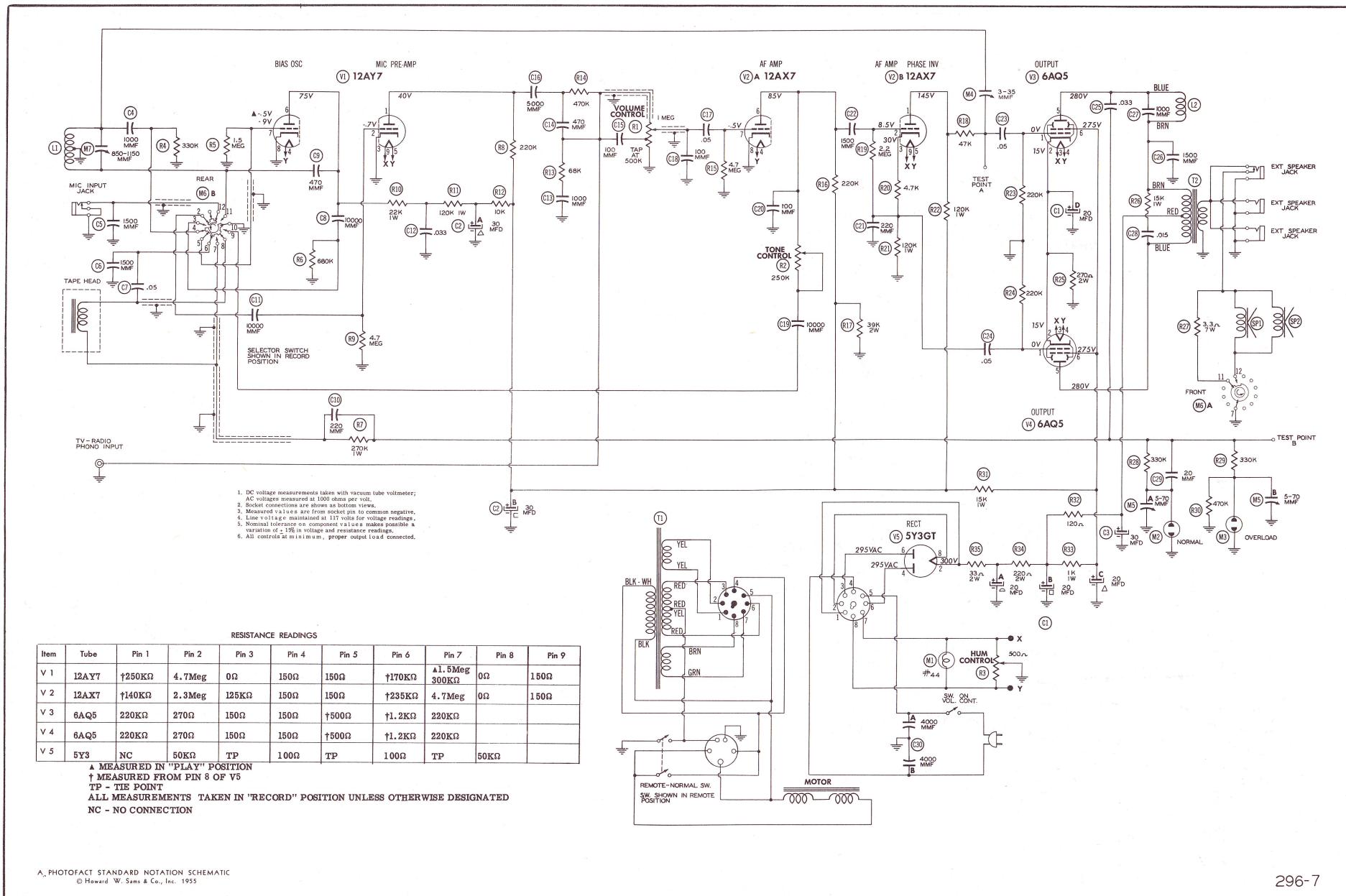
The record head (60), capstan (39), and pressure roller (70) are subject to an accumulation of tape coating residue, which is worn off the tape as it passes these parts. Use a soft cloth and alcohol to clean the head surfaces, capstan and pressure roller.

CAUTION: Do not use a brush or any metal object when cleaning the recording head as this could mar the metal pole piece.

LUBRICATION

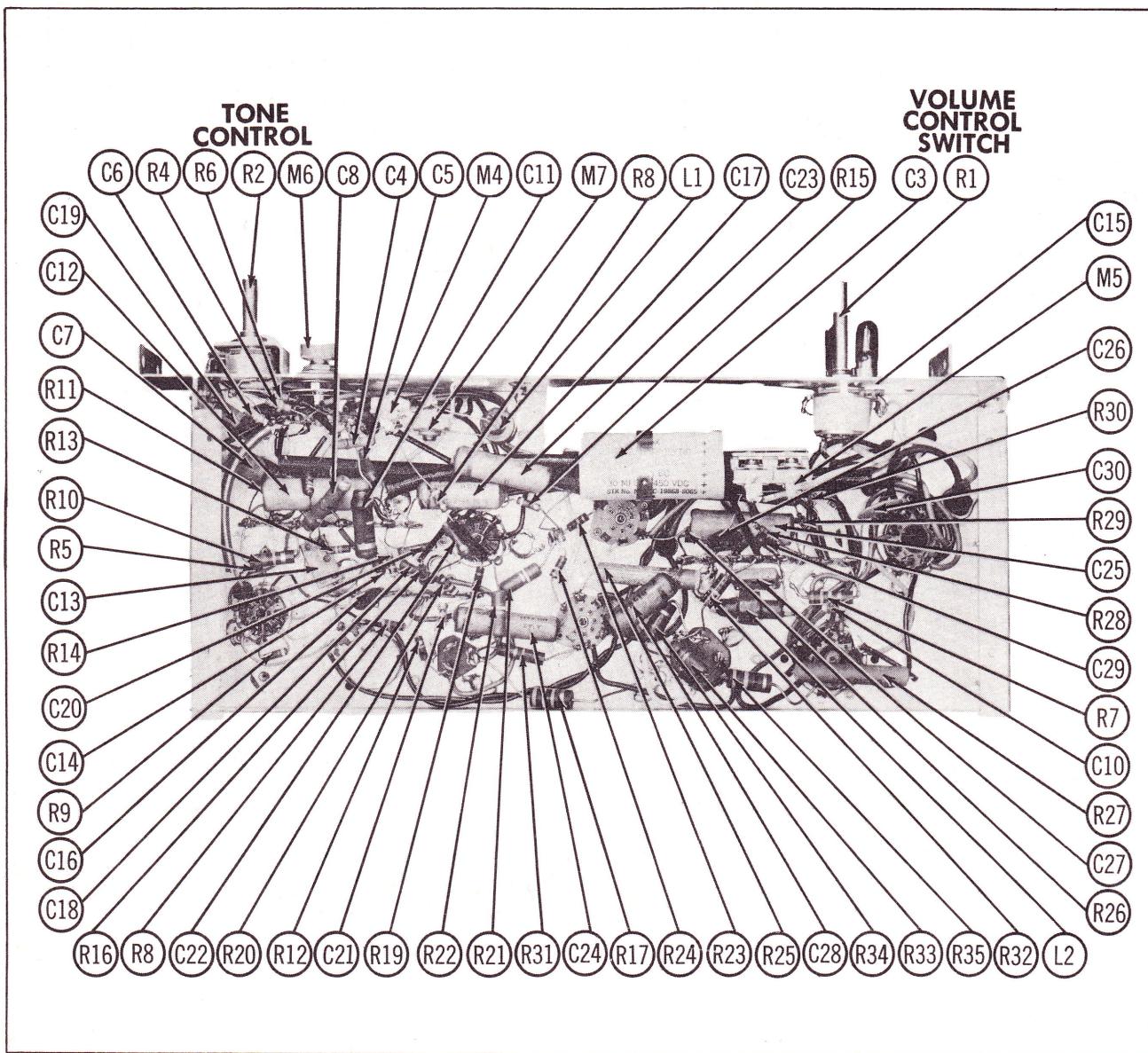
All rotating parts are provided with generous size oilite bearings, which are factory lubricated and require no further attention.

An occasional cleaning out of foreign matter under the plastic pushbutton cover is desirable, and a small drop of oil on the sliding lever members is advisable.



Schematic Diagram

MODEL 96RX635
KNIGHT



Bottom View Of Amp. Chassis

ELECTRICAL PARTS LIST

Ref. No.	Part No.	Description	Ref. No.	Part No.	Description
V1	69-2224	12AY7 Bias Osc. -Mic. Pre-Amp	C10	C-4. 109-27	Cap. Ceramic 220MMF
V2	69-2175	12AX7 AF Amp. -Phase Inv.	C11	C-4. 109-27	Cap. Ceramic 10000MMF
V3	69-2171	6AQ5 Output	C12	C-4. 109-9	Cap. Molded Paper .033@600V.
V4	69-2171	6AQ5 Output	C13	C-4. 109-2	Cap. Ceramic 1000MMF
V5	69-2227	5Y3GT Rectifier	C14	C-4. 109-10	Cap. Ceramic 470MMF
C1A		Elect. 20MFD@450V.	C15	C-4. 109-2	Cap. Ceramic 100MMF
C1B		Elect. 20MFD@450V.	C16	C-4. 109-10	Cap. Ceramic 5000MMF
C1C		Elect. 20MFD@450V.	C17	D-3. 100-18	Cap. Molded Paper. 05MFD@200V.
C1D		Elect. 20MFD@25V.	C18	C-4. 109-10	Cap. Ceramic 100MMF
C2A	B-5. 437	Elect. 30MFD@250V.	C19	C-4. 109-10	Cap. Ceramic 10000MMF
C2B		Elect. 30MFD@250V.	C20	C-4. 109-10	Cap. Ceramic 100MMF
C2C		Elect. 30MFD@25V. Not Used	C21	C-4. 109-27	Cap. Ceramic 220MMF
C3		Elect. 30MFD@450V.	C22	C-4. 109-13	Cap. Ceramic 1500MMF
C4	C-4. 109-9	Cap. Ceramic 1000MMF	C23	D-3. 100-19	Cap. Molded Paper. 05MFD@400V.
C5	C-4. 109-13	Cap. Ceramic 1500MMF	C24	D-3. 100-19	Cap. Molded Paper. 05MFD@400V.
C6	C-4. 109-13	Cap. Ceramic 1500MMF	C25		Cap. Molded Paper. 033MFD@600V.
C7	D-3. 100-18	Cap. Molded Paper. 05MFD@200V.			
C8		Cap. Ceramic 10000MMF			
C9	C-4. 109-2	Cap. Ceramic 470MMF			

ELECTRICAL PART LIST-Con't

Ref. No.	Part No.	Description	Ref. No.	Part No.	Description
C26	C-4. 109-13	Cap. Ceramic 1500MMF	R23	D-7. 101-114	Resistor 220K@1/2 W.
C27	C-4. 109-9	Cap. Ceramic 1000MMF	R24	D-7. 101-114	Resistor 220K@1/2 W.
C28	D-3. 100-58	Cap. Molded Paper. 015MFD@ 600V.	R25	53-2825	Resistor 270Ω@2 W.
C29	C-4. 109-34	Cap. Ceramic 20MMF	R26	D-7. 102-72	Resistor 15K@1 W.
C30A	B-4. 131	Cap. Ceramic Dual Disc 4000MMF	R27	C-6. 215-10	Resistor 3.3Ω@7W.
C30B	B-4. 131	Cap. Ceramic Dual Disc 4000MMF	R28	D-7. 101-121	Resistor 330K@1/2 W.
R1	C-8. 227-2	Vol. Cont. & Sw. Assy. 1Meg@ 1/2 W.	R29	D-7. 101-121	Resistor 330K@1/2 W.
R2	C-8. 231-1	Tone Cont. 250K@1/2 W.	R30	D-7. 101-128	Resistor 470K@1/2 W.
R3	C-8. 207-7	Hum Cont. 500Ω	R31	D-7. 102-72	Resistor 15K@1 W.
R4	D-7. 101-121	Resistor 330K@1/2 W.	R32	D-7. 102-23	Resistor 120Ω@1/2 W.
R5		Resistor 1.5Meg@1/2 W.	R33	D-7. 102-23	Resistor 1K@1 W.
R6	D-7. 102-134	Resistor 680K@1/2 W.	R34	D-7. 103-58	Resistor 220Ω@2W.
R7	D-7. 102-126	Resistor 270K@1 W.	R35	D-7. 103-23	Resistor 33Ω@2 W.
R8	D-7. 101-114	Resistor 220K@1/2 W.	T1	C-35. 804A	Power Trans. & Plug Assy.
R9	D-7. 101-178	Resistor 4.7Meg@1/2 W.	T2	C-9. 261C	Output Trans.
R10	D-7. 102-80	Resistor 22K@1 W.	SP1	C-30. 341-2	Speaker 8Ω PM
R11	D-7. 102-112	Resistor 120K@1 W.	SP2	D-30. 341-2	Speaker 8ΩPM
R12	D-7. 101-58	Resistor 10K@1/2 W.	L1	B-1. 557	Bias Osc. Coil
R13	D-7. 101-93	Resistor 68K@1/2 W.	L2	B-1. 556	Tone Choke
R14	D-7. 101-128	Resistor 470K@1/2 W.	M1	45-2003	Pilot Lamp #44
R15	D-7. 101-178	Resistor 4.7Meg@1/2 W.	M2	45-2036-0	Neon Lamp NE51 (Normal Ind.)
R16	D-7. 101-114	Resistor 220K@1/2 W.	M3	45-2036-0	Neon Lamp NE51(Overload Ind)
R17	D-7. 103-153	Resistor 39K@2 W.	M4	C-4. 142A	Trimmer Bias Adj. (3-35MMF)
R18	D-7. 101-86	Resistor 47K@1/2 W.	M5A	B-4. 140	Trimmer Normal Ind. (5.70MMF)
R19	D-7. 101-155	Resistor 2.2Meg@1/2 W.	M5B	B-4. 140	Trimmer Overload Ind. (5-70MMF)
R20	D-7. 101-44	Resistor 4.7K@1/2 W.	M6A		Play-Record Sw. (Viewed From Rear)
R21	D-7. 102-112	Resistor 120K@1W.	M6B		Play-Record Sw. (Viewed From Front)
R22	D-7. 102-112	Resistor 120K@1W.	M7	C-4. 142A	Trimmer, Bias Osc. Freq. Adj. (850-1150MMF)

MECHANICAL PARTS LIST

Ref. No.	Part No.	Description	Ref. No.	Part No.	Description
1	C-13. 253-4E	Speed Shift Knob	31	73-2231-5	#8Int. Lockwasher
2	57-2049-4	Screw #6-32 x 1/4BHMS	32	48-410-1	#6-32Hex. Nut
3	73-2334-1	#6 Cantlink Washer	33	73-2234-3	#6-Ext. Lockwasher
4	B-13. 261-1	Reel Pan For Feed Reel	34	48-410-1	#6-32 Hex. Nut.
5	B-28. 163	Linen Washer	35	73-2234-3	#6 Ext. Lockwasher
6	D-13. 292-2F	Rear Escutcheon	36	B-19. 876D	Push Button Lever
7	57-3445-1	#8-32 x 3/8Phillips RHMS	37	B-33. 446	Spacer
8	C-13. 254-7E	Tone Control Knob	38	D-35. 807-6F	Base Plate Assy.
9	73-2254-3	Felt Washer	39	B-32. 259F	Capstan Shaft
10	E-13. 293-3F	Front Escutcheon	40	B-31. 337B	Push Button Return Spring
11	48-2213-1	Hex. Nut 3/8-32 x 1/2	41	B-19. 859-1F	Hinge Bracket for Push Buttons
12	B-19. 985-1A	Bracket for Input Jack	42	57-3445-1	#8-32 x 3/8 RHMS
13	B-33. 453	Midget Jack	43	B-19. 870A	Locking Plate for Push Button
14	54-2030-35	Drilled Rivet 1/4 x 122 x 7/32	44	B-31. 343A	Lock Plate Spring
15	B-33. 370	Phono Jack	45	73-2231-4	#6-Int. Lockwasher
16	73-2254-3	Felt Washer	46	57-3603-1	#6-32 x 1/2 Phillips BHMS
17	57-2552-2	Screw 6-32 x 1 1/4Phillips RHMS	47	57-3439-0	#6-32 x 3/16 Bristol Head Set
18	B-13. 262-1	Reel Pan for Take-Up Reel	48	B-32. 300D	Screw
19	57-3678-1	#4-40 x 5/16 Phillips OHMS	49		Tape Guide Post (Left)
20	B-31. 351	Reel Drive Spring (Belt)	50	B-32. 260D	6-32 Hex. Nut
21	B-32. 302	Timer Knob	51	B-35. 794	Tape Guide Post Spacer
22	73-2231-3	#4 Internal Lockwasher	52	B-31. 347B	Erase Head Plate Assembly
23	57-2552-1	#6-32 x 1 1/4PhillipsRHMS	53	B-31. 334A	Erase Head Tension Spring
24	73-2334-1	#6-Cantlink Washer	54	57-428-1	Pressure Pad (Felt)2 used
25	35-851	Timer Shaft and Pointer Assy.	55	73-2233-1	#6-32 x 3/8 RHMS
26	B-19. 975-3B	Rear Escutcheon Plate	56	48-2216-1	Int. Lockwasher
27	B-32. 308-1	Record Lock Button	57	C-35. 756A	#2-56 x 3/16Hex. Nut
28	57-2109-2	#6-32 3/16BHMS Brz. Phillips	58	B-35. 766C	Erase Head
29	33. 415	"E" Ring Retainer	59	B-32. 309	Record Actuating Lever
30	54-2030-35	Drilled Rivet 1/4 x 122 x 7/32			Tape Guide Post (Right)

MECHANICAL PARTS LIST - Con't

Ref. No.	Part No.	Description	Ref. No.	Part No.	Description
60	C-36. 156B	Tape Recording Head(Shure TR16H)	112	57-2102-3	#8-32 x 1/4 RHMS
61	B-19. 881C	Playback Actuating Lever	113	B-28-159	Shock Mount
62	73-2241-148F	Flat Washer	114	B-19-840E	Steady Bracket
63	B-31. 336D	Pinch Roller Tension Spring	115	B-23. 163	Linen Washer
64	B-35. 758	Playback Slide Plate Assembly	116	C-13. 257-1C	Flywheel
65	B-35. 764D	Pressure Pad Spring Assembly	117	B-28. 163	Linen Washer
66	B-33. 412	Push-On Stud Nut, 3/16"Stud	118	B-32. 297B	Brake Drum Shaft
67	B-19. 868A	Record Slide Plate	119		Erase Head Forward Adjustment Screw
68	B-33. 409	Hairpin Clip	120	73-2231-5	Internal Lockwasher
69	73-2340	Linen Washer	121	57-2102-3	#8-32 x 1/4 RHMS
70	B-33. 404E	Pinch Roller	122	B-19. 862C	Angle Bracket for Mounting Drive Assy.
71	B-19. 858	Push Button Retainer Bracket	123	C-19. 837F	Motor Adapter Plate
72	73-2340	Linen Washer	124	73-2231-5	#8 Int. Lockwasher
73	B-35. 824A	Pinch Roller Plate Assy.	125	57-2102-3	#8-32 x 1/4 RHMS
74	110-48-B	Switch Lever Assy.	126	B-33. 411A	Flat Washer
75	B-31. 338B	Brake Return Spring	127	73-2231-5	#8 Internal Lockwasher
76	C-35. 835	Brake Slide Plate Assembly	128	48-409-1	8-32 x 5/16 Hex. Nut
77	B-33. 412	Push-On-Stud Nut, 3/16 Stud	129	D-36. 153E	Motor, Round Type(Fasco)Motor,
78	B-31. 339	Idler Lever Tension Spring	130	D-36. 154G	Square Type(GI and Alliance)
79	B-35. 759	Shift Plate Assembly	131	B-33. 418	Truearc Retaining"E" Ring
80	B-35. 774	Record Interlock Assembly	132	73-2241-143	Flat Washer
81	B-31. 333	Switch Arm Link	133	C-19. 887A	Felt Washer
82	73-2241-118	Flat Washer	134	73-2254-3	Fan Blade
83	54-2030-35	Drilled Rivet 1/4 x 122 x 7/32 (Bottom View of Item 38)	135	73-2241-143	Felt Washer
84			136	33. 415	Flat Washer
85	73-2231-5	#8 Int. Lockwasher	137	35. 834	Push-On Fastener
86	57-2102-3	#8-32 x 1/4 RHMS	138	97-3062	Idler Lever Assy.
87	B-19. 863	Drive Mounting Plate Bracket	139	B-31. 335A	Brake Spring
88	D-33. 445	Gear Train for Tape Index	140	141	Brake Pad, Felt
89	B-32. 301	Brake Drum Shaft (Grooved)	142	57. 3683-1	8-32 x 1/4Undercut Flat Head
90	B-28. 163	Linen Washer	143	B-33. 409	Hairpin Clip
91	C-35. 823	Brake Drum & Bushing Assy.	144	B-28. 163	Linen Washer
92	B-35. 757D	Sub. Idler Plate Assy.	145	B-33. 408C	Rubber Bonded Idler Wheel, 2 1/2" Dia.
93	B-32. 275-1E	#8-32 HH Shoulder Screw	146	B-28. 163	Linen Washer
94	B-35. 405E	Sub. Idler Wheel	147	B-31. 327D	Idler Lift Compression Spring
95	73-2254-6	Felt Washer	148	B-32. 288D	Motor Pulley
96	73-2241-150	Flat Washer	149	57-2102-3	#8-32 x 1/4 RHMS
97	B-33. 409	Hairpin Clip	150	73-2231-5	#8 Internal Lockwasher
98	B-33. 118A	Spacer	151	73-2241-143	Flat Washer
99	73-2241-150	Flat Washer	152	110-47	Idler-Throw-Out Lever
100	B-33. 418	Truearc Retaining "E" ring	153	B-32. 291	Shoulder Washer
101	73-2254-6	Felt Washer	154	B-31. 324A	Idler Spring (Tension)
102	B-33. 406C	Idler Drive Sheave	155	57-2109-2	#6-32 x 3/16Phillips BHMS
103	B-28. 162	Idler Drive Belt	156	B-19. 961	Speed Control Shaft Detent
104	C-35. 816	Speed Control Shaft Assy.	157	B-33. 407-1	Spring
105	57-3589-1	8-32 x 1/4Bristol Head Set	158	51-3182	"C" Washer
		Screw	159	57-2109-2	Shift Plate for High Speed
106	57-2109-2	#6-32 x 3/16Phillips BHMS	160	B-31. 324A	#6-32-3/16 Phillips BHMS
107	57-3679-1	#6-32 x 7/8 Phillips BHMS	161	B-32. 264F	Idler Spring (Tension)
108	57-3589-1	#8-32 x 1/4 Bristol Hd. Set	162	B-35. 768A	Idler Slide Bushing
		Screw	163	57-3589-1	Idler Slide Plate Assy.
109	B-35. 755-5D	Push Button Assy.			#8-32 x 1/4 Bristol Hd. Set
110	D-35. 753-1	Drive Mounting Plate Assy.			Screw
111	73-2231-5	Internal Lockwasher			